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Figure 1

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2701 tgactacaac atcaacactc aacgtggcgt ggatgctggt ctaaaagctc aatttggcaa catgcttacc gtggacggta aggccaaact 637 G D Y N I N I Q R G V D A G L K A Q F G N H L T V D G K A K 2791 aggtggtaca ctaaatctaa ctggtgagac caaagatggt atcatcagca aateaggtag ccgtagcaet gtacttegtg ctaagegtgg 667 L G G T L N L T G E T K D G I I S K S G S R S T V L R A K R tettgaaggt caatitgaca attategite aagcaaceca ttatitgaag taacaaatgi tgaatataeg eeagaagtag acagaaatgg G L E G Q F D N Y R S S N P L F E V T N V E Y T P E V D R N 2971 cagagtggta ggtggttcac gcacgaacaa tgacgtgcaa gtaactgcca aacgtctaag tgcaggcaat gttgtttatg gcatcagcat 727 G R V V G G S R T N N D V Q V T A K R L S A G N V V Y G I S gaatgacagt ggtagccgtg ttgcacaaaa cctagacaaa gtacttaatg atttagataa aaaacaagaa acacaaggtt cactgaccag M N D S G S R V A Q N L D K V L N D L D K K Q E T Q G S L T tgatgagaag caattigcta accgigtati cactggitti gaaaacatga attciggige agaatciaaa cittciacag taagcaccaa s D E K O F A N R V F T G F E N M N S G A E S K L S T V S T ccgtgagcta tacaagcttg acceaacttt ctatgctgac agtgcattaa acgcagtaga agacagtgct aaccatgcaa ccgaatttgg N R E L Y K L D P T F Y A D S A L N A V E D S A N H A T E F taagegtgtt agegeeceaa gaggtgtttg gggtaatate agteaceatg attatgatgt agaactagag catgetaeaa gtgeaegtaa G K R V S A P R G V W G N I S H H D Y D V E L E H A T S A R aggraaceac attagtgttg gtgcaagcac teaaactgca geegacatta gtgttggtgc acaacttgat gtaagtaaac ttgacttgga K G N N I S V G A S T Q T A  $\lambda$  D I S V G A Q L D V S K L D L agaatetgtt tatggtattg gcaacaaaac caaaactgac agcattggct tgactgttgg tgcttctaag aagttgggtg atgcctatct 3601 atcaggttgg gtaaaaggtg ccaaagttga tacagaagcg aaccgtggtg aaaactctaa caaagttgag tacaatggta agctatatgg 3691 tgctggtate caagegggta caaacattga tactgcateg ggcgtgagtg tacaacetta tgcctttgtt aaccatcage agtacaaaaa 967 G A G I Q A G T N I D T A S G V S V Q P Y A F V N H Q Q Y K 3781 cgatggtage tteaatgacg gtettaaegt tgttgaegae ategaageaa aacaaaetea ggtaggtgtg ggtgetgata tggtgtteea 997 N D G S F N D G L N V V D D I E A K Q T Q V G V G A D M V F ageaacacct getetacage tractggtgg tgtgcaagtt geteaegetg tragcegtga caccaaccta gacactcgct atgttggtac Q A I P A L Q L I G G V Q V A H A V S R D I N L D I R Y V G agegacagat gracagtatg geactiggga tactgacaaa accaaatggt cagecaaggt tggtgctaac tataatgtga caccaaacag I A I D V Q Y G I W D I D K I K W S A K V G A N Y N V I P N 1057 ccaagtgggt ctaaactaca gctacacagg tagtggcgat tcagatgctt cccaagtggg tgtgagcttc accagcaagt tctaattcat s Q V G L N Y S Y T G S G D S D A S Q V G V S F T S K  $_{
m F}$  -4141 taataaggoa acaaaaaaca goacaattto ggttgtgotg ttttttgtga tgeogagegt aaaattttee caaaaaaage gigataatta 4231 ccacqctttt ttattgcata ttgcaaaata gtattgcatt tatgggttgt taagcaaccc gtccaaatac cccctaaaca actccacccc 4321 aarcggtget aacttgtttt gecaeagget egteaatgtg teggeateat caaecattae egae

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1 tgggcagata accestcasa gaccessage saccestasa tessassase acttgtastt tgtgtastat ettgttacac tttacasqtg tttttacttt gaaagcaact cagaagtaa taatgaaaaa atccgccttt gccaaatact cagcacttgc cctaatggtt gggatgtgcc M K K S  $\lambda$  F  $\lambda$  K Y S  $\lambda$  L  $\lambda$  L M V G M C tgcacaecge ttacgccaag gagtttagee aagtcateat ttttggggae agettgteeg atacaggteg ectamaagat atggtegeee L H T A Y A K E F S Q V I I F G D S L S D T G R L K D M V A 181 gaaaagatgg caccettgge aacacettae agceatettt taccaceaac eeegaceetg tatggteaag ettatttgee caaagttatg R K D G T L G N T L Q P S F T T N P D P V W S S L F A Q S Y 271 50 geaaaaccgc cagtgccaac acgeectaca atcecaetgg cactaactat geegtgggcg gagetegete tggeteggag gteaattgga G K T A S A N T P Y N P T G T N Y A V G G A R S G S E V N  $\mathbb H^2$ 361 80 atggttttgt gaatgtacce tecaccaaaa egcaaatcae egaccatttg accgecacag gtggcaaage egaccetaat accetgtatg N G F V N V P S T K T Q I T D H L T A T G G K A D P N T L Y 451 ccatttggat tggctctaat gacttaattt cagcttetca agccaccaca acagccgaag cccaaaacgc cattaaaggt gcggtaactc ccatctatgg cgaaagecte atgge $\bar{a}$ ggeg tgeaagacaa agecaaaete geeteaagte tgtataatag eggtetgttt gaageattaa A I Y G E S L M A G V Q D K A K L A S S L Y N S G L F E A L 200 ateratecae egecaacate atecetquea acacettique ectaetecaa gaagegacea canatanaga ageettique titananaca N Q S T A N I I P A N T F A L L Q E A T T N K E A F G F  $^{\rm K}$   $^{\rm M}$ cgcaaggcgt ggcgtgtcaa atgcccqctc gtaccacagg ggcggatgat gtggcttcta cttccttggc atgtaccaaa gccaatctta T O G V A C Q M P  $\lambda$  R T T G  $\lambda$  D D V  $\lambda$  S T S L  $\lambda$  C T K  $\lambda$  N L 901 tagaaaacgg ggcaaatgac acctacgcct ttgccgatga cattcaccca tcgggacgca cgcaccgcat tttggcacag tattaccgtt I E  $^{\prime}$ N G A N D T Y A F A D D I M P S G R T  $^{\prime}$ D T  $^{\prime}$ C  $^{\prime}$ C 991 ctatcatgga egecectact cacatgggta aactetcagg egagettgte aaaacaggtt cageccacga eegteatgtt taccgteage 1081 ttgacagget tagtggetca cagcacagca tttgggcaaa egtecatgee agegacegta eegaceeaa caccaaate ggettggacg L D R L S G S Q H S I W A N V H A S D R T D P T T Q I G L D tggcaggttc atcaagccat acaggggcgt atctgagcca ccaaaaccaa gattatgtgc tggatgacac cctatcatca gatgtcaaaa v A G S S S H T G A Y L S H Q N Q D Y V L D D T L S S D V K1261 ccattggcat ggggctgtat catcgccatg acatcggcaa tgtccgtcta aaaggcgtgg caggtatcga ccgacttagc gtggatacgc T I G  $^{\prime}$ M G  $^{\prime}$ L Y  $^{\prime}$ H R  $^{\prime}$ H D I G  $^{\prime}$ N  $^{\prime}$ V R  $^{\prime}$ L  $^{\prime}$ K G  $^{\prime}$ V A G I D R  $^{\prime}$ L S  $^{\prime}$ V D T 1351 acceccatat cgactgggag ggggcaagce gttegcacae ggcagacace acceccagae gttttcatgc agggctacaa gccagctatg geatagacat gggcaaagce accgtgcgte cgcttategg cgtacatgce caaaaagtea aagtgcgtga tttggtagag aatgagceta G I D M G K A T V R P L I G V H A Q K V K V R D L V E N E P contaction of the contaction 1621 500 ctttgactct gacgggcggt atcgctcacg ctcatgagtt taacgatgat gaacgcacca ttaatgccac tttaacctcc attcgtgaat A L T L T G G I A H A H E F N D D E R T I N A T L T S I R E acacquaggg ctttaataca agogttagca ocqueanate teacqueace accqeteate tgggcqtaca agggcanett ggcanggcan 1801 TOK TAH 560 atatteatge aggegtteae gecacceace aagacagega tacagacgtg ggtggttege ttggggtteg ettgatgttt tgattggett 1891 1981 traaagataa aaagtogtat catqccactt tttattttgc caaaaatcta tgtttgagta catcaaagcc tttcacatca tcgccatqcg 2071 atgataagct gtcaaacatg ag

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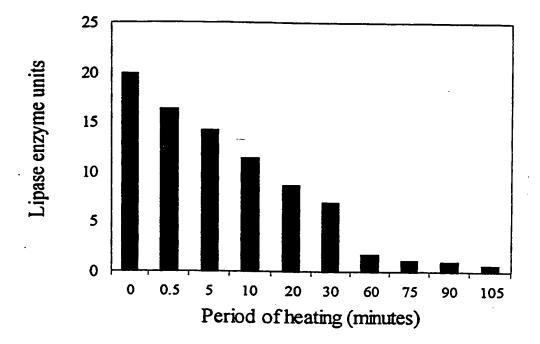
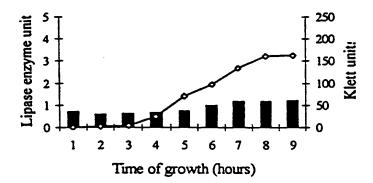


Figure 3

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## (i) Dalton 2d / M. bovis



## (ii) pMB1 / MC1061

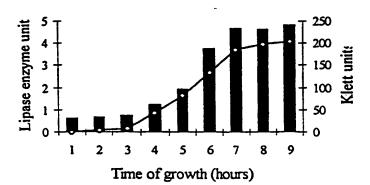


Figure 4

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Figure 5

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2431 gategactit ciggagatga aggegatgat tiactegatg geggtetgg tgatgatgat tiaaatggtg gtgetggtaa tgatgetetat 734 DRL SGD EGDD TLLD GGS GGDD VLNG GAGN NDVY Y 2 2521 acctitegga aaggegatgg taatgatact tigtacgatg geacgggeaa tgataaatta geattigeag atgeaaatat atectgatatt 1 FR KGD GND TLYD GTTGN NDKLAFA DANN ISDITATION OF TAND TLYD GTTGN NDKLAFA DANN ISDITATION OF TAND TO THE PROPERTY OF TAND THE PROPERTY OF TANDEST OF TAND THE PROPERTY OF TANDEST OF TAND

Figure 5 (continued)